

IN THE CLAIMS:

These claims will replace all prior versions of claims in the present application.

Claims 1 to 10 have been cancelled.

11. (New) A two phase motor of small size comprising:

a stator carrying two power supply windings; and

a rotor provided with a bipolar permanent magnet, wherein the stator defines a first principal magnetic pole, a second principal magnetic pole and a third principal magnetic pole that together define a stator aperture in which the bipolar magnet is housed, and the first and second principal poles are connected to the third principal pole by two magnetic cores, respectively, each core carrying one of the two windings, wherein the third principal pole defines two adjacent secondary poles separated in a peripheral region at the stator aperture by a region of high magnetic reluctance and connected to one another by a stator part of high magnetic permeability, wherein the first and second principal poles and the two secondary poles are distributed in four sectors of a circle of about 90° around the stator aperture.

12. (New) A two phase motor according to claim 11, wherein the region of high magnetic reluctance separating the two secondary poles is defined by a blind slot opening into the stator aperture.

13. (New) A two phase motor according to claim 11, wherein the three principal magnetic poles are formed by three planar parts that extend in the same general plane.

14. (New) A two phase motor according to claim 12, wherein the three principal magnetic poles are formed by three planar parts that extend in the same general plane.

15. (NEW) A two phase motor according to claim 11, wherein the stator is formed of an iron-silicon alloy.

16. (New) A two phase motor according to claim 12, wherein the three principal magnetic poles are formed by three planar parts that extend in the same general plane.

17. (New) An indicator device of the value of a measured physical magnitude in a moving automobile vehicle, the device having an analog display and comprising a motor according to claim 11 for driving the analog display.

18. (New) A method of making a motor of small size having a stator with several magnetic poles around an aperture provided for the permanent magnet rotor, the method comprising the following successive steps:

(a) cutting out a plate formed of a magnetic material so as to define the aperture for the rotor and the several magnetic poles that extend in the same general plane, these poles defining pole pieces separated by slots in the peripheral region of the aperture, at least a part of the slots are blind so that the magnetic poles remain formed physically as a single part at this stage;

(b) applying an annular element to the cut out plate in a manner centered relative to the aperture, wherein the slots and this annular element are arranged so that the annular element passes over the slots and the slots extend beyond an external contour of the annular element, wherein the annular element is at least partially covering the several magnetic poles

and is formed of a non-magnetic or weakly magnetic material relative to the plate of magnetic material;

(c) fixing the annular element to the several magnetic poles; and

(d) cutting the plate in such a manner as to extend at least two of the blind slots to obtain through slots magnetically separating at least one of the magnetic poles from the other poles of the stator thus formed.

19. (New) The method according to claim 18, wherein fixing of the annular element is effected by laser welding.

20. (New) The method according to claim 19, wherein welding is effected through the annular element, the laser beam being directed on to an upper face of the annular element relative to the plate.

21. (New) The method according to claim 19, wherein the said annular element is made of a non-magnetic or weakly magnetic metal.

22. (New) The method according to claim 21, wherein the annular element is made of stainless steel.